

Abstract:

Title: Compare of the measured channel with two Raypex5 and Smarpex method
Electronic Apex Locator with radiographic root canal in vitro

Introduction: The ultimate objective in endodontic treatment is root canals free of disease causing agents. These include the remains of organic materials, modified proteins, bacteria and their toxins and antigens. To remove a source of antigens present in the root canal, the endodontic treatment is essential to the proper conduct. It includes cleaning and shaping roots and seals completely with an impermeable and three-dimensional fill that there is no leakage. The objective of this study was to compare the two methods periapical parallel radiography and use the Apex Finder to determine the root canal length.

Materials and Methods: In this study, 68 teeth due to periodontal disease were used for the study. First the actual length of each root canal was determined by eye. Then all the channels length determine once by parallel method radiographic and by the apex locator Raypex5 and Smarpex. After collecting data, the corresponding data were analyzed using SPSS version 19.

Results: The difference of the radiographic with the exact length was not statistically significant. The difference of exact length with the Raypex5 was statistically significant. The difference of exact length with the Smarpex was statistically significant.

Conclusion: In the study of 60 channels, The 25 apex locator channel of Raypex5 indicated Similar length to the actual length with a difference of ± 0.5 mm. The 26 channel of radiographic devices indicated Similar length to the actual length with a difference of ± 0.5 mm.

Keywords: Apex Finder, length of radiographic teeth, length of root canal